Sheldrake, Sean

From: BAYUK Dana <BAYUK.Dana@deq.state.or.us>

Sent: Thursday, September 17, 2015 3:43 PM

To: 'John Renda'; Rob Ede

Cc: John Edwards; Ben Hung; Rana Uhl; Ben Uhl; James Peale; Kerry Gallagher (kgallagher@maulfoster.com); Sheldrake, Sean; Lance

Peterson (petersonle@cdmsmith.com); Coffey, Scott; LARSEN Henning

Subject: RE: Gasco: Groundwater Quality Monitoring Data Report and Aqua Gard Memo

Attachments: 20150917-DEQ_Comments-NWN_Monitoring_Prog_Modifications.pdf

Good afternoon.

This e-mail follows up on our recent telephone calls during which we discussed the "Groundwater Quality Monitoring Data Report, NW Natural Gasco Site," dated July 17, 2015 (Monitoring Report). Anchor prepared the Monitoring Report for NW Natural.

The Monitoring Report compiles the results of NW Natural's sampling work on the Gasco and Siltronic sites through March 2015, including the analytical data associated with monitoring the Alluvium water-bearing zone hydraulic control and containment (HC&C) system; the supporting and backup information for the HC&C system sampling and analytical work (e.g., Field Sampling Data Sheets, Chain-of-Custody Forms, Laboratory Analytical Reports); and chemical trend plots for installations in the monitoring program overall.

The Monitoring Report also recommends modifying the groundwater monitoring program by removing selected installations and reducing the frequency of sampling generally. NW Natural's recommendations are provided in Section 3 and Section 4 of the report and can be organized into the following general categories;

- Removing HC&C system control wells from the program (see Section 3, page 6);
- Removing from the program sampling locations where nearby installations provide duplicative data (see Section 3, page 7);
- Excluding "river parameters" from the analyte list for the HC&C system extraction wells (see Section 3.1); and
- Reducing the frequency of groundwater sampling at extraction wells, monitoring wells, observation wells, and piezometers to once per year (see Section 4).

Table 3 of the Monitoring Report shows the groundwater monitoring program with NW Natural's recommendations incorporated.

DEQ has reviewed the Monitoring Report and the attached table provides our approval or disapproval of each of NW Natural's recommendations. The attachment also identifies modifications DEQ is making to the groundwater monitoring program for the reasons cited. The attachment reflects our recent telephone discussions.

Besides making recommendations for modifying the groundwater monitoring program and consistent with previous agreements, the Monitoring Report includes NW Natural's proposal for collecting split-samples for analysis of available cyanide. As discussed over the telephone, DEQ approves the list with the addition of monitoring wells WS-8-33, NWN-2-20, and NWN-13-23.

Lastly, during a telephone call on September 2nd DEQ approved NW Natural's recommendations for modifying the frequency of measuring DNAPL in monitoring wells, observation wells, piezometers, control wells, and extraction wells consistent with Section 7 and Table 4 of the "DNAPL Monitoring Summary Report -2014, NW Natural Gasco Site" dated January 30, 2015 (see footnote). Although DEQ previously provided written approval in an e-mail dated September 11th, it is repeated here so recent decisions regarding routine field work (e.g., DNAPL measurements, groundwater sampling) are captured in a single document.

This e-mail focuses on NW Natural's recommendations for modifying the groundwater monitoring program to facilitate the field schedule for the September 2015 sampling event. Please be advised that DEQ may also provide comments on other aspects of the Monitoring Report.

DEQ appreciates the ongoing work NW Natural is conducting to monitor groundwater contamination and HC&C system performance on the Gasco and Siltronic sites. Please free to contact me with questions regarding this e-mail and attachment.

Dana

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Footnote. The report is attached to the "Groundwater Source Control, Phase 1 Testing Data Summary and Analysis Report - NW Natural Gasco Site" (January 30, 2015) as Appendix A. Anchor prepared both reports on behalf of NW Natural.

From: John Renda [mailto:jrenda@anchorgea.com]

Sent: Friday, July 17, 2015 4:27 PM

To: BAYUK Dana

Cc: Bob Wyatt; Patty Dost; John Edwards; Carl Stivers; Ben Hung; Rob Ede; Kerry Gallagher (kgallagher@maulfoster.com); James Peale (jpeale@maulfoster.com) (jpeale@maulfoster.com); Scott Coffey <coffeyse@cdmsmith.com> (coffeyse@cdmsmith.com); Lance Peterson (petersonle@cdmsmith.com); LARSEN Henning;

Rana Uhl

Subject: Gasco: Groundwater Quality Monitoring Data Report and Agua Gard Memo

Dana -

Two documents have been uploaded to the FTP site.

"Groundwater Quality Monitoring Data Report"
"Aqua Gard Memo"

The Groundwater Quality Monitoring Data Report is a report documenting the results of the laboratory testing performed under the current Integrated Monitoring Plan through March 2015 and includes recommended changes to the Integrated Monitoring Plan effective for the next scheduled monitoring event scheduled for September 2015. This report has some very large attachments which includes over 100 laboratory reports, data validation reports, field data sheets and the updated groundwater chemistry database. These attachments will be provided electronically only (not in hard copy). A hard copy of the PDF and a complete CD of the entire report will follow.

The Aqua Gard Memo 2015 is a memo documenting the Aqua Gard CO₂ Injections conducted prior to the Phase 2 HC&C System test. This documentation was requested by DEQ in an email dated June 12, 2015.

Instructions for accessing the FTP site are below.

To access the FTP site automatically using Windows Explorer please follow the steps below.

- From Windows XP desktop select Start -> Run or for Windows 7 select Start -> and click in the search box.
- Copy/Paste the following line into the "Open" box for XP or the "Search" box for Windows 7 and hit "enter"

(b) (6)

• You should now be logged into the site using Windows Explorer. You can use copy/paste to move files to or from the site.

To access the FTP site via web browser please follow the steps below.

- Click on the following link (b) (6)
- Input the username and password:

Username (b)
Password:

John J. Renda, RG

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